

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A variable gain amplification circuit comprising:

a signal generator having an output load part comprising a variable resistor ~~or a variable inductor, and~~ and an output terminal, said variable resistor comprising a plurality of selectable resistors, wherein a resistance value of said variable resistor is controlled by controlling a first switching unit so as to select at least one resistor of said plurality of selectable resistors;

a variable capacitor connected between said output terminal and an AC grounded terminal, said variable capacitor comprising a plurality of selectable capacitors, wherein a capacitance value of said variable capacitor is controlled by controlling a second switching unit so as to select at least one capacitor of said plurality of selectable capacitors; and

a control circuit operable to control ~~an output amplitude of said signal generator and a~~ said first switching unit and said second switching unit so as to control the capacitance value of said variable capacitor and the resistance value of said variable resistor,

wherein said control circuit controls the capacitance value of said variable capacitor and the resistance value of said variable resistor by controlling on/off action of said first switching unit and said second switching unit ~~the capacitance value of said variable capacitor~~ so as to make a cutoff frequency ~~or a resonance frequency~~ of said signal generator constant at a time of a gain setting of said signal generator.

2-3. (Canceled)

4. (Previously Presented) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator comprises:

a variable gain mixer having a first input terminal and a second input terminal;
an RF signal source connected to said first input terminal of said variable gain mixer; and
an LO signal source connected to said second input terminal of said variable gain mixer.

5. (Previously Presented) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator comprises:

a variable gain amplifier having a first input terminal; and
an RF signal source connected to the first input terminal of the variable gain amplifier.

6-15. (Canceled)

16. (Currently Amended) A variable gain amplification circuit comprising:

a signal generator having an output load part comprising a variable resistor ~~or a variable inductor, and~~ and an output terminal, said variable resistor comprising a plurality of selectable resistors, wherein a resistance value of said variable resistor is controlled by controlling a first switching unit so as to select at least one resistor of said plurality of selectable resistors;

a variable capacitor connected between said output terminal and an AC grounded terminal, said variable capacitor comprising a plurality of selectable capacitors, wherein a capacitance value of said variable capacitor is controlled by controlling a second switching unit

so as to select at least one capacitor of said plurality of selectable capacitors; and

a control means ~~for controlling an output amplitude of said signal generator and for~~
controlling ~~[[a]]~~ the capacitance value of said variable capacitor and the resistance value of said
variable resistor by controlling said first switching unit and said second switching unit so as to
make a cutoff frequency ~~or a resonance frequency~~ of said signal generator constant at a time of a
gain setting of said signal generator.

17-18. (Canceled)

19. (Previously Presented) A variable gain amplification circuit as defined in Claim 16,
wherein said signal generator comprises:

a variable gain mixer having a first input terminal and a second input terminal;
an RF signal source connected to said first input terminal of said variable gain mixer; and
an LO signal source connected to said second input terminal of said variable gain mixer.

20. (Previously Presented) A variable gain amplification circuit as defined in Claim 16,
wherein said signal generator comprises:

a variable gain amplifier having a first input terminal; and
an RF signal source connected to the first input terminal of the variable gain amplifier.

21. (Canceled)

22. (Currently Amended) A variable gain amplification circuit as defined in Claim 1, wherein said variable capacitor includes a circuit comprising at least two capacitors placed in parallel, and ~~at least one switch connected to an end of one of said at least two capacitors~~

wherein said second switching unit includes at least one switch connected to an end of one of said at least two capacitors; and ~~wherein the capacitance of said variable capacitor is varied by ON/OFF of said at least one switch.~~

23. (Canceled)

24. (Currently Amended) A variable gain amplification circuit as defined in Claim ~~[[2]]~~ 1,

wherein said variable resistor includes a circuit comprising at least two resistors placed in parallel, and ~~at least one switch connected to an end of one of said at least two resistors; and~~

wherein said first switching unit includes at least one switch connected to an end of one of said at least two resistors ~~wherein the resistance of said variable resistor is varied by ON/OFF of said at least one switch.~~

25-26. (Canceled)